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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/778,008	02/12/2004	Zakar Raffi Hachikian	ITW 0009 PA/41038.13/1455	3347
51635 7590 11/26/2008 DINSMORE & SHOHL LLP ONE DAYTON CENTRE, ONE SOUTH MAIN STREET SUITE 1300 DAYTON, OH 45402-2023				
EXAMINER FEELY, MICHAEL J				
ART UNIT 1796		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/778,008

Applicant(s)

HACHIKIAN, ZAKAR RAFFI

Examiner

Michael J. Feely

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12, 14-38, 42-56, 58, 59 and 61 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8, 14, 16-23, 26-35, 55 and 56 is/are allowed.
- 6) ☒ Claim(s) 9, 11, 15, 24, 25, 36-38, 42-54, 58, 59 and 61 is/are rejected.
- 7) ☒ Claim(s) 10, 12, 53 and 54 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Pending Claims

Claims 1-12, 14-38, 42-56, 58, 59, and 61 are pending.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 6, 2008 has been entered.

Response to Amendment

2. The previous objection to claims 9-12, 15, 58, 59, and 61 has been overcome by amendment.
3. The rejection of claims 1-7, 9, 14-18, 21-24, 26, 27, 29-34, 36, 37, 42, 43, 45-48, 52, 53, 55, 58, 59, and 61 under 35 U.S.C. 103(a) as being unpatentable over Hartman et al. (US Pat. No. 6,068,885) has been overcome by amendment.
4. The rejection of claims 8, 10, 28, and 49 under 35 U.S.C. 103(a) as being unpatentable over Hartman et al. (US Pat. No. 6,068,885) in light of McLean et al. (US Pat. No. 4,480,082) has been overcome by amendment.

5. The rejection of claims 11 and 50 under 35 U.S.C. 103(a) as being unpatentable over Hartman et al. (US Pat. No. 6,068,885) in light of Golding et al. (US Pat. No. 4,916,020) has been overcome by amendment.
6. The rejection of claims 12, 51, and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hartman et al. (US Pat. No. 6,068,885) in light of McLean et al. (US Pat. No. 4,480,082) and Golding et al. (US Pat. No. 4,916,020) has been overcome by amendment.

Response to Arguments

7. Applicant's arguments, see the first paragraph of the remarks, filed November 6, 2008, (*in concert with the declaration filed November 6, 2008*) with respect to the *amide/imidazoline* have been fully considered and are persuasive. The rejection of claims 14, 30, and 35 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, has been withdrawn.
8. Applicant's arguments, see the second paragraph of the remarks, filed November 6, 2008, (*in concert with the declaration filed November 6, 2008*) with respect to the *mixed viscosity* have been fully considered and are persuasive. The rejection of claims 1-8, 14, 16-35, 55, and 56 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, has been withdrawn.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 24, 25, 36-38, 42-54 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 24 features: *about 5 to about 30%* by weight of resin component, diglycidyl ether and *about 5 to about 20%* by weight of resin component, glycidyl ether. This limitation limits the composition of claim 23 (*which goes back to claim 17*) featuring *about 10 to about 30%* by weight of the resin component, of a diluent. When claim 24 features *about 30%* diglycidyl ether, the total amount of diluent (*adding about 5 to about 20% by weight glycidyl ether*), exceeds the previously recited range of *about 10 to about 30%* by weight of the resin component, of a diluent. Hence, the scope of the claim 24 is indefinite. Claim 25 is rejected because it is dependent from claim 24.

Claim 36 features similar discrepancy. The resin component features *about 70 to about 90%* by weight of resin component, of an epoxy resin. This leaves maximum of about 10 to about 30% by weight of additional materials; however, the claim further includes *about 5 to about 30%* by weight of resin component, a difunctional reactive diluent and *about 5 to about 20%* by weight of resin component, a monofunctional reactive diluent. When claim 36 features *about 30%* difunctional reactive diluent, the total amount of diluent (*adding about 5 to about 10% by weight monofunctional reactive diluent*), exceeds the available amount of *about 10 to about 30%* by weight of the resin component. Hence, the scope of the claim 36 is indefinite. Claims 37, 38, and 42-54 are rejected because they are dependent from claim 36.

Furthermore, claim 43 features a similar discrepancy.

The rejection of claim 24 can be overcome with the following language: *about 5 to about 20% by weight of resin component, diglycidyl ether and about 5 to about 20% by weight of resin component, glycidyl ether.*

The rejection of claim 36 can be overcome with the following language: *about 5 to about 20% by weight of resin component, a difunctional reactive diluent and about 5 to about 20% by weight of resin component, a monofunctional reactive diluent.*

The rejection of claim 43 can be overcome with the following language: *about 5 to about 20% by weight of resin component, diglycidyl ether and about 5 to about 10% by weight of resin component, glycidyl ether.*

Claim Objections

11. Claims 53 and 54 are objected to because of the following informalities: for consistency, claim 53 should feature the following language: the resin component comprises: about 70 to about 90% by weight of resin component of an epoxy resin selected from bisphenol A, bisphenol F, or combinations thereof; *about 5 to about 20% by weight of resin component of a difunctional reactant diluent*, wherein the difunctional reactive diluent is diglycidyl ether; *about 5 to about 10% by weight of resin component of a monofunctional reactive diluent*, wherein the monofunctional reactive diluent is glycidyl ether. Claim 54 is objected to because it is dependent from claim 53.

Appropriate correction is required.

Claim interpretation

12. In the pending claims, the recitation “*infiltrant*,” has been given little patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

In the instant case, the preamble merely recites the intended use of the composition, wherein the prior art can meet this future limitation by merely being capable of such intended use.

Claim Rejections - 35 USC § 103

13. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

14. Claims 9, 11, 15, 58, 59, and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whiting et al. (Us Pat. No. 3,980,604) in view of Hartman et al. (US Pat. No. 6,068,885).

Regarding claims 9, 58, 59, and 61, Whiting et al. disclose: (58) a two component composition (column 3, lines 42-46: *mixing at the time of use*) comprising: a resin component (column 2, line 29 through column 3, line 6); and *about 15 to 35 parts of reactive diluent per 100 parts of resin* (column 3, lines 1-3), *wherein the reactive diluent is selected from materials*

including difunctional reactive diluents and monofunctional reactive diluents (column 2, lines 58-61); and a hardener component comprising: an amine selected from *see claim for list* (column 3, lines 18-41); and *optionally* an amide selected from polyamides and mixtures thereof (*optional material not required*);

(59) wherein the epoxy resin is selected from bisphenol A, bisphenol F, or combinations thereof (column 2, lines 29-42);

(61) wherein the amine is an unmodified aliphatic amine (column 3, lines 18-41); and (9) wherein the amine is a polyamine (column 3, lines 18-41).

Whiting et al. use their composition to treat concrete, brick, and like materials (*see Abstract*). They employ about 15 to 35 parts of reactive diluent per 100 parts of resin, wherein the reactive diluent is selected from materials including difunctional epoxy diluents and monofunctional epoxy diluents. However, they fail to disclose: the use of *about 5 to about 30% by weight of a difunctional reactive diluent and about 5 to about 10% by weight of monofunctional reactive diluent*. The instant invention features a ratio of di:mono of from 1:2 to 6:1.

Hartman et al. disclose a similar composition (*see Abstract; column 3, line 9 through column 4, line 56*), which is also used for treating concrete materials (*see Abstract*). Hartman et al. disclose that a diverse reactive diluent is advantageous for this type of system, wherein diepoxide reactive diluents and monoepoxide reactive diluents are provided in a ratio of (di:mono) of from 3.5:1 to 9:1. This ratio obviously overlaps the ratio of the instant invention.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the instantly claimed reactive diluent in the composition of Whiting et al.

because: (a) Whiting et al. use their composition to treat concrete, brick, and like materials; (b) Whiting et al. employ about 15 to 35 parts of reactive diluent per 100 parts of resin, wherein the reactive diluent is selected from materials including difunctional epoxy diluents and monofunctional epoxy diluents; (c) Hartman et al. disclose a similar composition used for treating concrete materials; (d) Hartman et al. disclose that a diverse reactive diluent is advantageous for this type of system, wherein diepoxide reactive diluents and monoepoxide reactive diluents are provided in a ratio of (di:mono) of from 3.5:1 to 9:1; and (e) the ratio of Hartman et al. obviously overlaps the ratio of the instant invention.

Regarding claims 11 and 15, these limitations are not required because: *(11)* the scope of the amine is open to the entire list set forth in claim 61; and *(15)* the amide is an optional material. Accordingly, these limitations are obviously satisfied for the reasons set forth above.

Allowable Subject Matter

15. Claims 1-8, 14, 16-23, 26-35, 55, and 56 are allowed.
16. Claims 10 and 12 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
17. Claims 36-38, 42, and 45-54 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.
18. Claims 24, 25, 43, and 44 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Feely whose telephone number is (571)272-1086. The examiner can normally be reached on M-F 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Y. Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael J Feely/
Primary Examiner, Art Unit 1796

November 21, 2008